

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

IN THE CLAIMS:

1. (Currently Amended) A reversible axial piston machine $[(1)]$ having a cylinder drum $[(5)]$ which rotates about an axis of rotation $[(7)]$ and in the cylinder cutouts of which pistons $[(6)]$, which are supported against an inclined surface $[(8)]$, are movable, the control angle (α_1, α_2) of said inclined surface being adjustable by an adjusting device $[(12)]$, the adjusting device $[(12)]$ having a control piston $[(24)]$ which adjusts the control angle (α_1, α_2) in both pivotal directions and extends with a substantial direction component parallel to the direction of the axis of rotation $[(7)]$ of the cylinder drum $[(5)]$,

~~characterised in that~~ wherein

the zero position of the inclined surface $[(8)]$, in which the inclined surface $[(8)]$ is oriented perpendicularly to the axis of rotation $[(7)]$ of the cylinder drum $[(5)]$, can be set without play by a zero-position setting device $[(32)]$.

2. (Currently Amended) A reversible axial piston machine according to Claim 1,

~~characterised in that~~ wherein

the zero-position setting device $[(32)]$ comprises a first adjusting rod $[(39)]$ which is positionably guided in a stepped cutout $[(37)]$ of the control piston $[(24)]$, said cutout extending in the direction of the longitudinal axis $[(11)]$ of the control piston $[(24)]$, and positions the control piston $[(24)]$ in the two directions of its longitudinal axis $[(11)]$.

3. (Currently Amended) A reversible axial piston machine according to Claim 1 $[[\text{or } 2]]$,

~~characterised in that~~ wherein

the inclined surface [(8)] is constructed on a rotatably mounted pivot balance [(9)].

4. (Currently Amended) A reversible axial piston machine according to Claim 2,

~~characterised in that~~ wherein

the control piston [(24)] is guided in a hollow cylinder [(13)] which has a first step [(14)] on its inside and whereof the first opening [(15)], which is oriented in the direction of the inclined surface [(8)], is not closed in order to also enable an axial movement of the control piston [(24)] outside the hollow cylinder [(13)], and whereof the second opening [(18)], which is oriented away from the pivot balance [(9)], is closed by a closing cover [(19)].

5. (Currently Amended) A reversible axial piston machine according to Claim 4,

~~characterised in that~~ wherein

the position of the first adjusting rod [(39)] outside the adjusting device [(12)] is set by the first adjusting rod [(39)] being guided out of the hollow cylinder [(13)] of the adjusting device [(12)] by way of the closing cover [(19)].

6. (Currently Amended) A reversible axial piston machine according to Claim 4 [[or 5]],

~~characterised in that~~ wherein

the control piston [(24)] is positioned in one of the two directions of the longitudinal axis [(11)] of the control piston [(24)] by a respective first and second spring plate [(43, 44)] which is each fixed on the first adjusting rod [(39)].

7. (Currently Amended) A reversible axial piston machine according to Claim 6,

~~characterised in that~~ wherein

the first spring plate [(43)] is fixed on the first adjusting rod [(39)] in that the first spring plate [(43)] is pressed against the inside end face [(46)] of a closing flange [(47)] by the spring force of at least one pretensioned pressure spring [(45)] located between the first and second spring plate [(43, 44)], said closing flange being mounted on that end of the first adjusting rod [(39)] which is located inside the hollow cylinder [(13)] of the adjusting device [(12)].

8. (Currently Amended) A reversible axial piston machine according to Claim 7,

~~characterised in that~~ wherein

the second spring plate [(44)] is fixed on the first adjusting rod [(39)] in that the second spring plate [(44)] is pressed against a sleeve [(48)] by the spring force of the pretensioned pressure spring [(45, 45A, 45B)], said sleeve being guided between the second spring plate [(44)] and the closing cover [(19)] on the adjusting rod [(39)].

9. (Currently Amended) A reversible axial piston machine according to ~~one of Claims 6 to 8,~~

~~characterised in that~~ Claim 6, wherein

the control piston [(24)] is positioned in the direction of the first opening [(15)] of the hollow cylinder [(13)] in that the first spring plate [(43)] is pressed against the end face of a second step [(42)] of the cutout [(37)] of the control piston [(24)] as a result of the first adjusting rod [(39)] being positioned in the direction of the first opening [(15)] of the hollow cylinder [(13)].

10. (Currently Amended) A reversible axial piston machine according to ~~one of Claims 6 to 9,~~
~~characterised in that~~ Claim 6, wherein

the control piston $[(24)]$ is positioned in the direction of the second opening $[(18)]$ of the hollow cylinder $[(13)]$ in that the second spring plate $[(44)]$ is pressed against a snap ring $[(51)]$ as a result of the first adjusting rod $[(39)]$ being positioned in the direction of the second opening $[(18)]$ of the hollow cylinder $[(13)]$, said snap ring being guided in an annular groove along the side face of the cutout $[(37)]$ of the control piston $[(24)]$ in the region of the third opening $[(38)]$ of the cutout $[(37)]$.

11. (Currently Amended) A reversible axial piston machine according to ~~one of Claims 4 to 10,~~
~~characterised in that~~ Claim 4, wherein

the closing cover $[(19)]$ has an annular web $[(20)]$ whereof the external diameter corresponds to the internal diameter of the hollow cylinder $[(13)]$ from the second opening $[(18)]$ to the first step $[(14)]$ of the hollow cylinder $[(13)]$, and whereof the internal diameter corresponds to the internal diameter of the hollow cylinder $[(13)]$ from the first step $[(14)]$ to the first opening $[(15)]$ of the hollow cylinder $[(13)]$.

12. (Currently Amended) A reversible axial piston machine according to Claim 11,
~~characterised in that~~ wherein

the closing cover $[(19)]$ is guided in the second opening $[(18)]$ of the hollow cylinder $[(13)]$ by means of its tubular web $[(20)]$ in such a way that a cavity $[(28, 29)]$ is

produced between the hollow cylinder [(13)], the closing cover [(19)] and the control piston [(24)] and, at the same time, the control piston [(24)] is mounted on the inner side wall of the annular web [(20)] of the closing cover [(19)] and the inner side wall of the hollow cylinder [(13)] between the first step [(14)] and the first opening [(15)] of the hollow cylinder [(13)].

13. (Currently Amended) A reversible axial piston machine according to Claim 12,

~~characterised in that~~ wherein

the control piston [(24)] has, on its lateral surface in the region of the cavity [(28, 29)], a widening [(26)] which reaches to the inner side wall of the hollow cylinder [(13)] and divides the cavity [(28, 29)] into a first control pressure chamber [(28)] and a second control pressure chamber [(29)].

14. (Currently Amended) A reversible axial piston machine according to Claim 13,

~~characterised in that~~ wherein

the first and second control pressure chambers [(28, 29)] are each supplied with a control pressure by way of a respective control pressure opening [(31, 33)] in the wall of the hollow cylinder [(13)].

15. (Currently Amended) A reversible axial piston machine according to Claim 13 [[or 14]],

~~characterised in that~~ wherein

the two side faces $[(30, 32)]$ of the widening $[(26)]$ of the control piston $[(24)]$ serve as working surfaces for the two control pressures for displacing the control piston $[(24)]$ in the two directions along the longitudinal axis $[(11)]$ of the control piston $[(24)]$.

16. (Currently Amended) A reversible axial piston machine according to Claim 15,

~~characterised in that,~~ wherein

with a defined control pressure, the control piston $[(24)]$ effects an equal control angle (α_1 , α_2) of the inclined surface $[(8)]$ in both pivotal directions as a result of the working surfaces of the control piston $[(24)]$ being of equal size.

17. (Currently Amended) A reversible axial piston machine according to ~~one of Claims 3 to 16,~~

~~characterised in that,~~ Claim 3, wherein

the control piston $[(24)]$, which is axially movable in the direction of its longitudinal axis $[(11)]$, is attached with form fit to the pivot balance $[(9)]$ by way of a slide block $[(56)]$ which is mounted in a groove $[(57)]$ of the control piston $[(24)]$ and has a cutout in which a journal connected to the pivot balance $[(9)]$ by way of a connecting arm $[(58)]$ is fixedly mounted.

18. (Currently Amended) A reversible axial piston machine according to Claim 7,

~~characterised in that,~~ wherein

with an equal excursion of the control piston $[(24)]$ in one of the two directions along the longitudinal axis $[(11)]$ of the control piston $[(24)]$, the pressure spring $[(45, 45A, 45B)]$,

which is fixed in the cutout [(37)] of the control piston [(24)] on the first adjusting rod [(39)], generates an equal restoring force for both directions of the excursion as a result of a defined control pressure.

19 (Currently Amended) A reversible axial piston machine according to Claim 4,

~~characterised in that,~~ wherein

the axial excursion of the control piston [(24)] along the longitudinal axis [(11)] of the control piston [(24)] is adjustably delimited by way of a second adjusting rod [(52)], which is guided out of the hollow cylinder [(13)] of the adjusting device [(12)] by way of the closing cover [(19)].